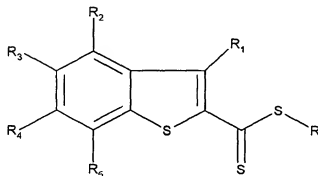


## CLAIMS

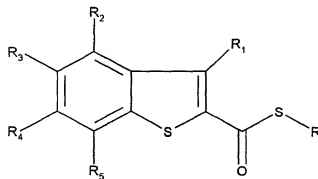
What is claimed is:

1. A method for the preparation of benzo[b]thiophenecarbodithioic esters of the formula:



wherein R is alkyl, R<sub>1</sub> is hydrogen, halogen, or alkyl, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, and R<sub>5</sub> are independently selected from the group consisting of hydrogen, halogen, alkyl, alkoxy, alkylthio, trifluoromethyl, cyano, and aryl,

wherein said method comprises reacting an equivalent of an S-thiol ester of the formula:



with one-third of an equivalent of P<sub>2</sub>S<sub>5</sub>, 2 equivalents of at least one alkali metal carbonate, about 2.5 mole percent of a phase transfer catalyst, and a catalytic amount of water in hot

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22 toluene.

1 2. The method of claim1 wherein R is methyl or ethyl and R<sub>1</sub> R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, and R<sub>5</sub> are  
2 independently selected from the group consisting of hydrogen, chlorine, C<sub>1</sub>-C<sub>4</sub> alkyl, and  
3 trifluoromethyl.

1 3. The method of claim2 wherein R<sub>1</sub> R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, and R<sub>5</sub> are hydrogen.

1 4. The method of claim 3 wherein R is ethyl.

1 5. The method of claim 1 wherein the alkali metal carbonate is potassium carbonate or  
2 cesium carbonate.

1 6. The method of claim5 wherein the alkali metal carbonate is potassium carbonate.

1 7. The method of claim 1 wherein the phase transfer catalyst is benzyltriethylammonium  
2 chloride or tetrabutylammonium bromide.

1 8. The method of claim7 wherein the phase transfer catalyst is benzyltriethylammonium  
2 chloride.

1 9. The method of claim 7 wherein the phase transfer catalyst is tetrabutylammonium  
2 bromide.

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- 1        10.        The method of claim 1 wherein R is ethyl, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, and R<sub>5</sub> are hydrogen, the  
2        alkali metal carbonate is potassium carbonate, and the phase transfer catalyst is  
3        benzyltriethylammonium chloride.